802.11g Wireless PCI Adapter

Model # AWLH3026T

User's Manual

Ver. 1A

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1. Introduction

Thank you for purchasing the 802.11g Wireless PCI Adapter. The Wireless PCI Adapter is an advanced IEEE 802.11b/g compatible, high-performance wireless card that supports data transfer speeds of up to 54 Mbps. The adapter can be integrated into a network in either Ad-Hoc mode (without an Access Point) or Infrastructure mode (with an Access Point).

This Adapter supports 64/128-bit WEP data encryption that protects your wireless network from eavesdropping. It also supports WPA-PSK for improved encryption feature. Users are required to authorize before accessing the Access Point or Wireless Router, and the data transmitted through the network is encrypted/decrypted by a dynamically changing secret key.

1.1 Package Contents

Before you begin the installation, please check the items of your package. The package should include the following items:

- 802.11g Wireless PCI Adapter
- Detachable Antenna
- Quick Installation Guide
- Driver & Utility CD (Driver/Utility/Manual)

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2. Installation

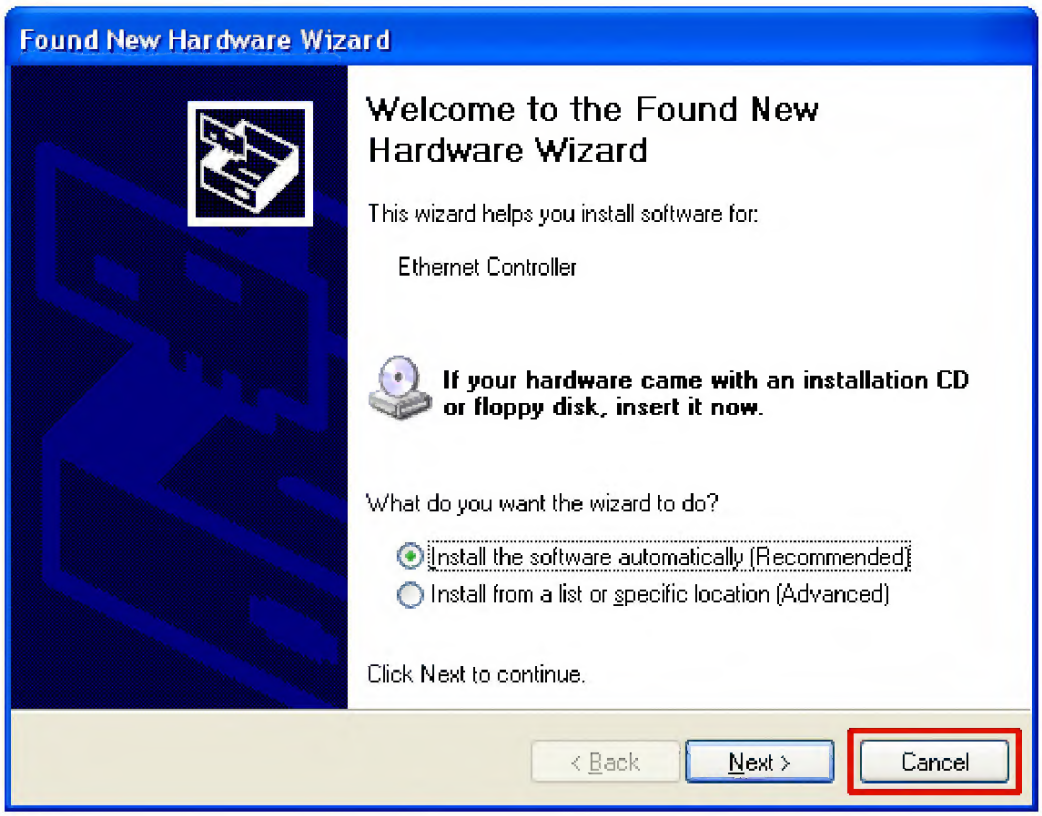
2.1 Install Driver & Utility

This section provides instructions on how to install the **Airlink101 802.11g Wireless PCI Adapter**. The driver is installed along with the utility.

Note: *Be sure to power off your computer before inserting the PCI adapter. For Windows 98SE and ME users, you may be prompted to insert the Windows 98SE or ME CD during the driver installation. Be sure to have your Windows 98SE or ME CD ready.*

Step 1 Insert the PCI adapter into an available PCI slot and turn on your computer.

Step 2 Windows will launch the **Found New Hardware Wizard**. The wizard appears differently depending on your operating system. Click **Cancel** to quit the wizard and insert the Driver & Utility CD into your CD drive.


Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Ethernet Controller
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

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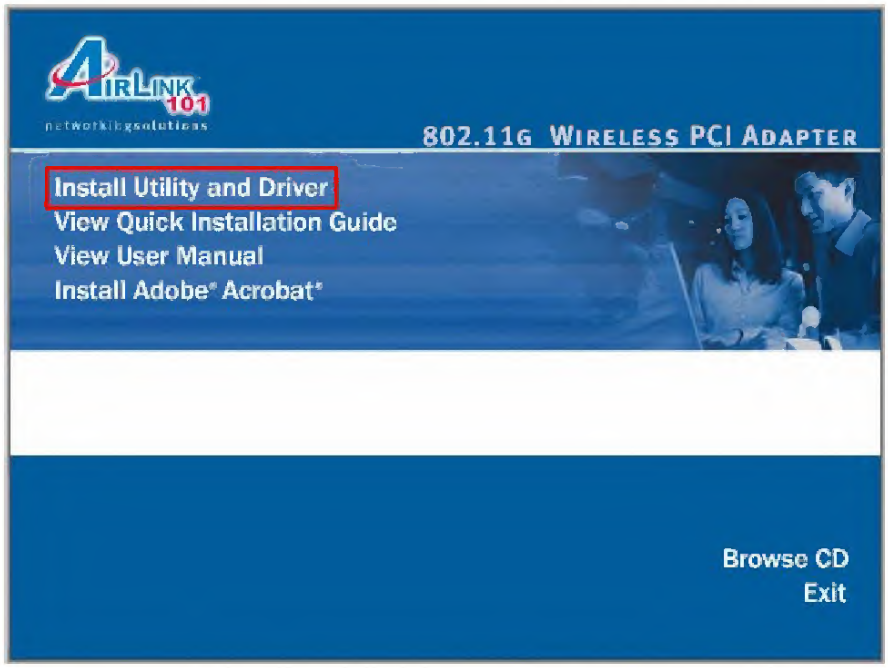
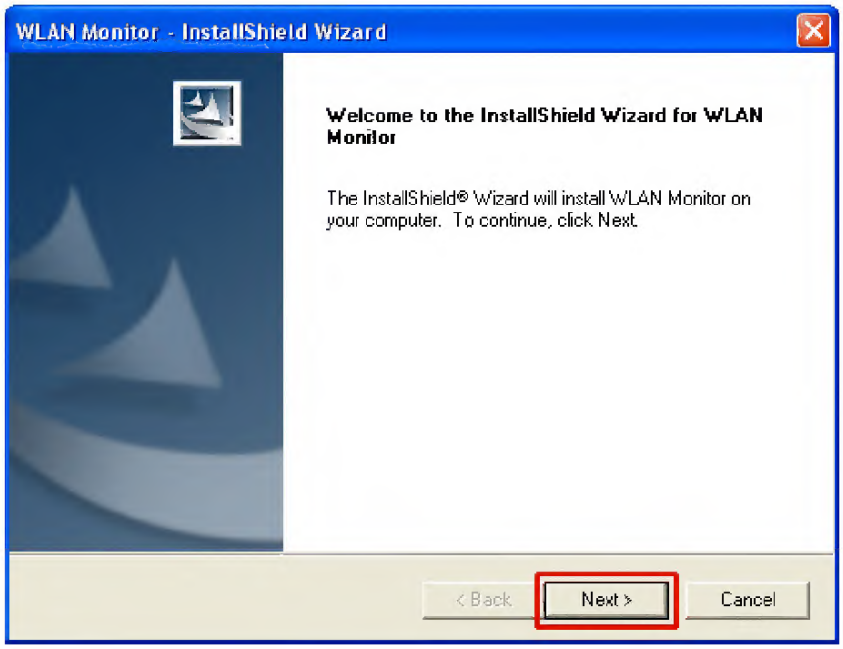
Step 3 The Autorun screen will appear. Select **Install Utility and Driver** from the menu.



Note: *If the Autorun screen doesn't appear automatically go to* ***Start***, ***Run***, *and type* ***D:\utility\setup.exe*** *(where* ***D*** *is the letter of your CD drive) and click* ***OK.***

Step 4 Click **Next** at the welcome screen.


WLAN Monitor - InstallShield Wizard
Welcome to the InstallShield Wizard for WLAN Monitor
The InstallShield® Wizard will install WLAN Monitor on your computer. To continue, click Next.
< Back
Next >
Cancel

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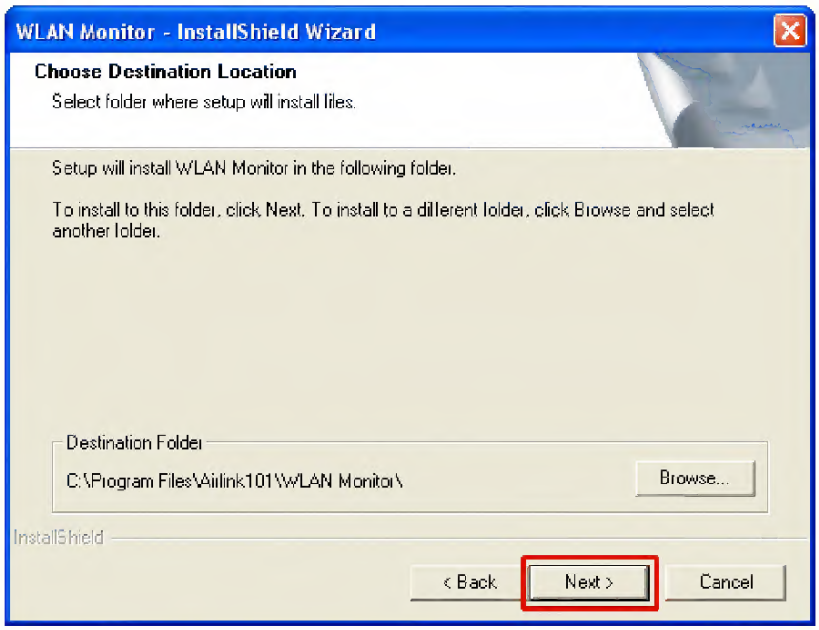
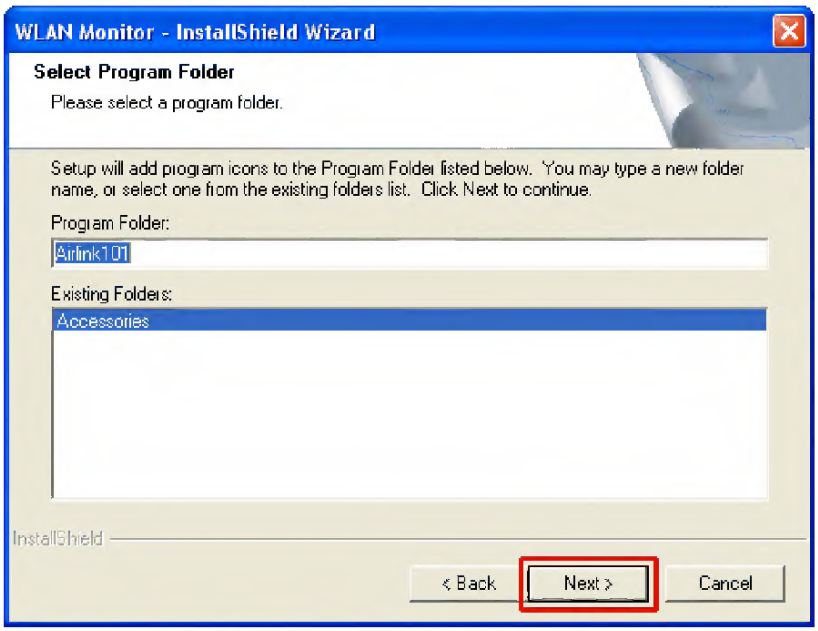
Step 5 Click **Next** to accept the default destination folder.


WLAN Monitor - InstallShield Wizard
Choose Destination Location
Select folder where setup will install files.
Setup will install WLAN Monitor in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Airlink101\WLAN Monitor\
Browse...
InstallShield
< Back
Next >
Cancel

Step 6 Click **Next** to accept the default program folder.


WLAN Monitor - InstallShield Wizard
Select Program Folder
Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folder:
Airlink101
Existing Folders:
Accessories
InstallShield
< Back
Next >
Cancel

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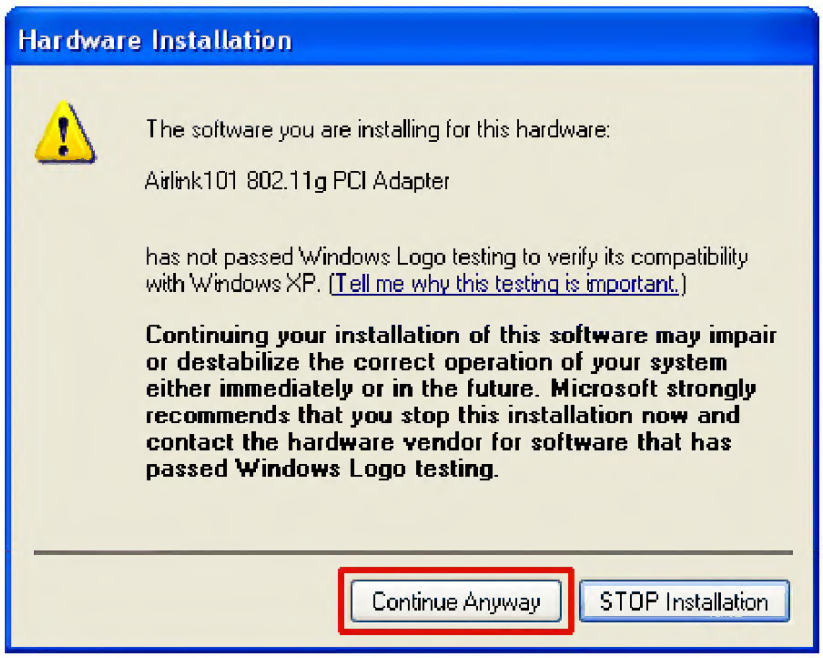
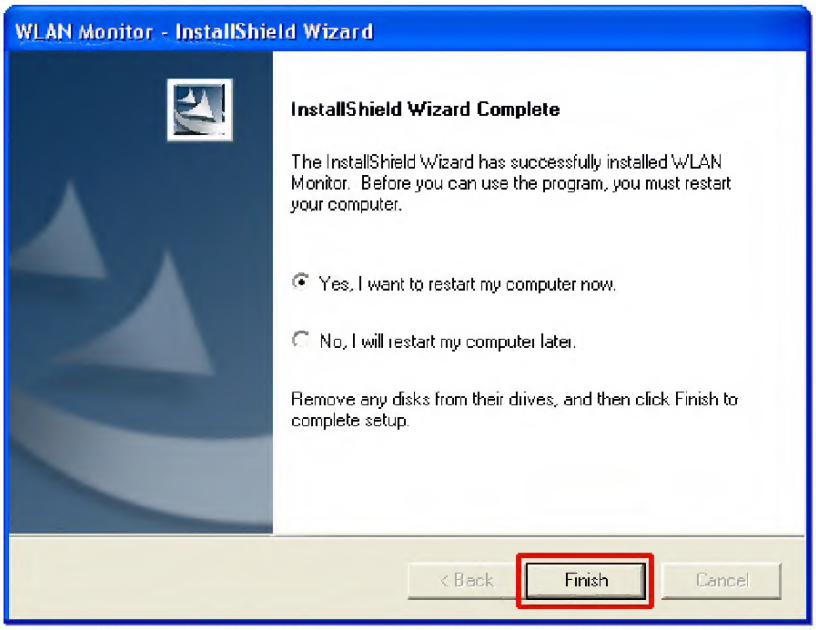
Step 6 Click **Continue Anyway** at the Windows Logo Screen.
(For Windows 2000, click **Yes** at the Digital Signature Not Found prompt).


Hardware Installation
The software you are installing for this hardware:
Airlink101 802.11g PCI Adapter
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Step 7 Verify **Yes, I want to restart my computer now** is selected and click **Finish** to restart your computer.


WLAN Monitor - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed WLAN Monitor. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

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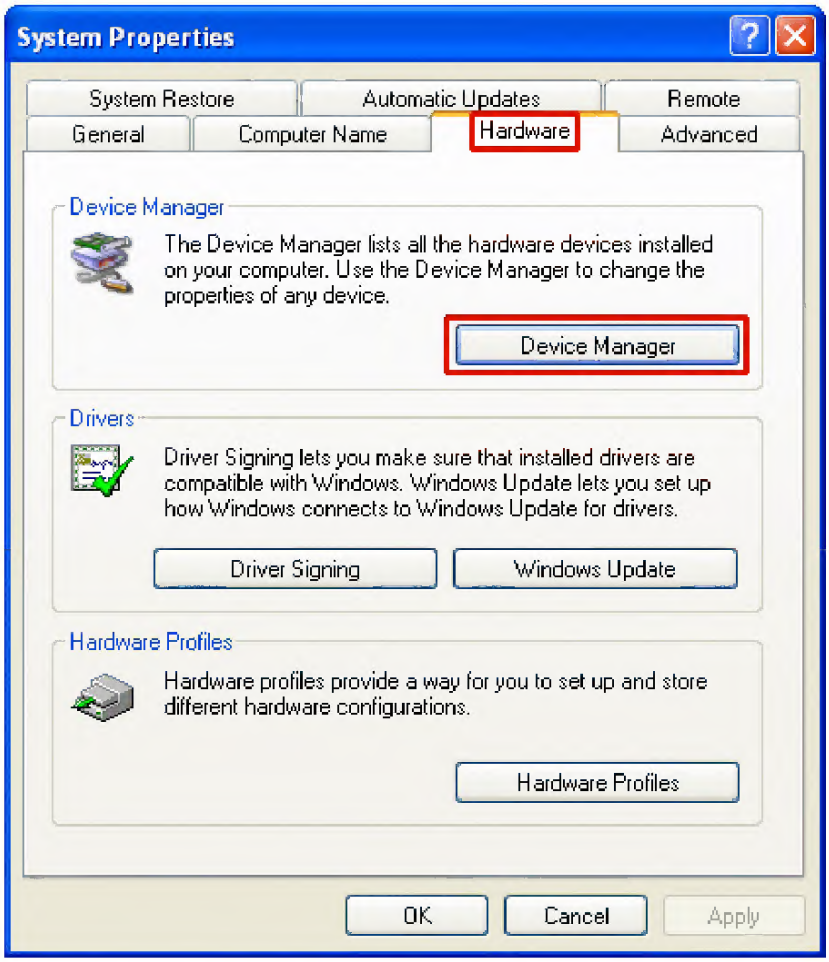
2.2 Verify Driver Installation

To verify if the driver has been installed successfully, please perform the following steps.

Step 1 Right-click on **My Computer** from your desktop and select **Properties**.

Step 2 Select the **Device Manager** tab. (For Windows 2000/XP, select the **Hardware tab** first and then click on **Device Manager**).


System Properties
System Restore
Automatic Updates
Remote
General
Computer Name
Hardware
Advanced
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Device Manager
Drivers
Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
Driver Signing
Windows Update
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles
OK
Cancel
Apply

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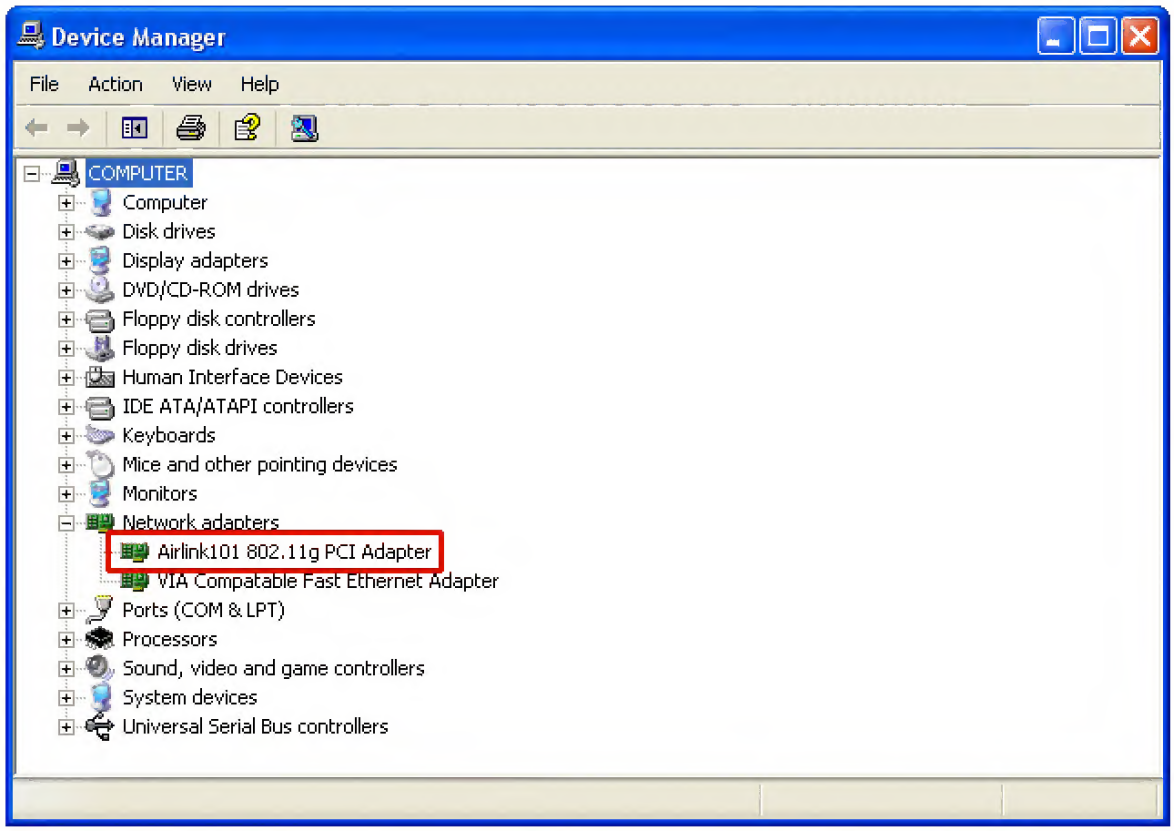
Step 3 Expand **Network adapters** from the list and verify that **Airlink101 802.11g PCI Adapter** is listed and no yellow question mark is beside it.



If **Airlink101 802.11g PCI Adapter** is not listed, or you see a yellow question mark beside it, please re-install the driver again.

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3. Configure the Wireless PCI Adapter

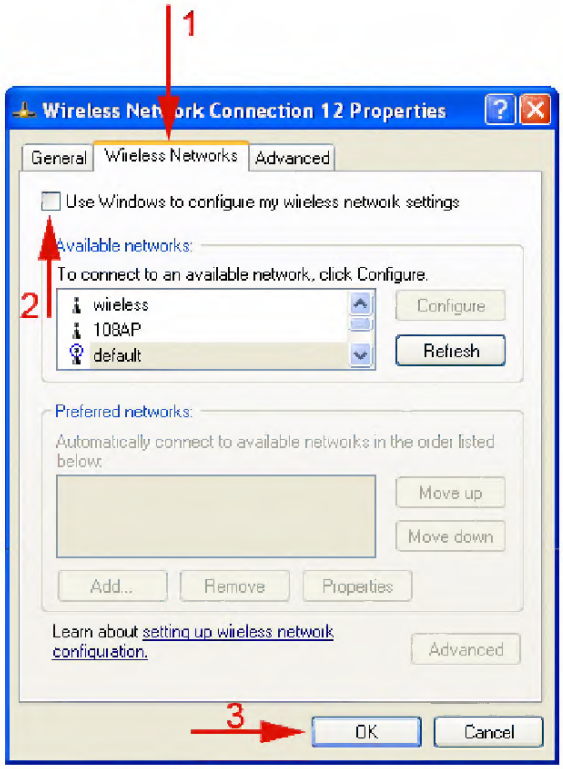
This section describes how to connect your **Airlink101 802.11g Wireless PCI Adapter** to a wireless network.

Note to Windows XP Users:

You must disable the Wireless Zero Configuration Utility in order to use the WLAN Monitor. Please refer to the following steps to disable the Wireless Zero Configuration Utility.

Step 1 Double-click on the **Wireless Network Connection Icon** in the system tray and then click on **Change advanced settings** under **Related Tasks**.

Step 2 Go to the **Wireless Networks** tab, verify the **"Use Windows to configure my wireless network settings"** box is unchecked and click **OK**.



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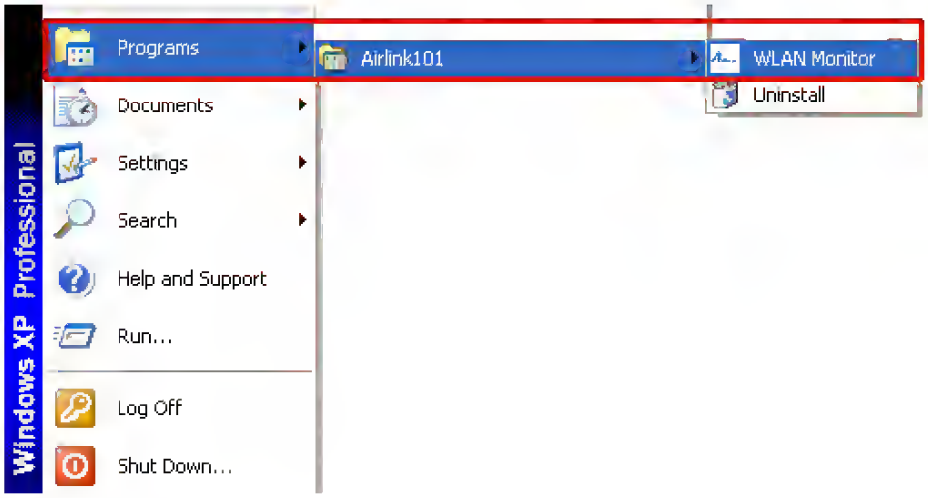
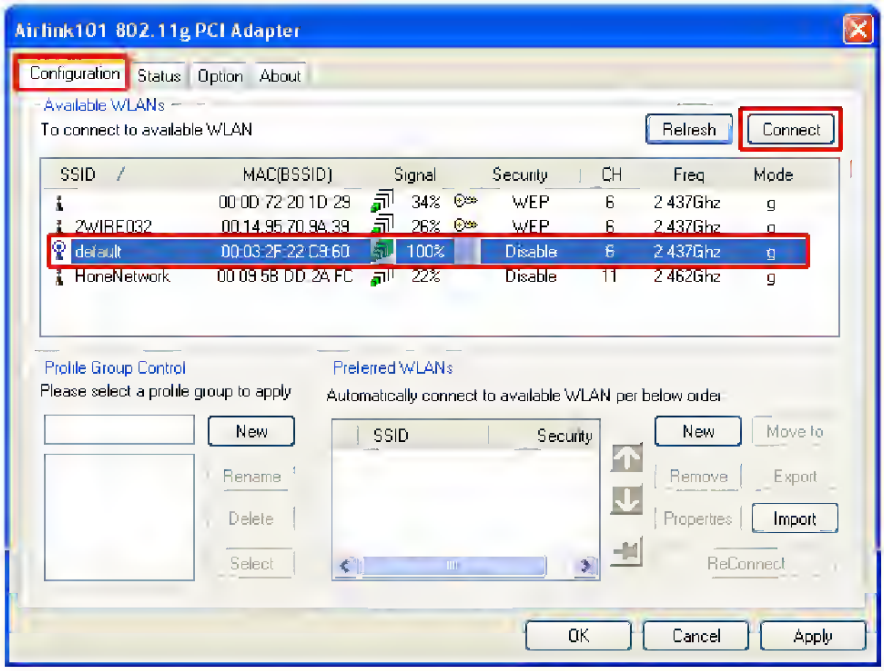
To open the Wireless PCI Adapter's utility go to **Start > (All) Programs > Airlink101 > WLAN Monitor**.



***Note:** The utility automatically adds an available wireless network to the **Preferred WLANs** box. If no SSID is added, or if the SSID is wrong, please refer to the following steps to join the appropriate wireless network. Be sure to remove the wrong SSID from the **Preferred WLANs** box before adding any new SSID. You can remove the wrong SSID by selecting it and clicking on **Remove**.*

Step 1 Select the SSID of the wireless network you wish to connect to from the **Available WLANs** box and click **Connect**.



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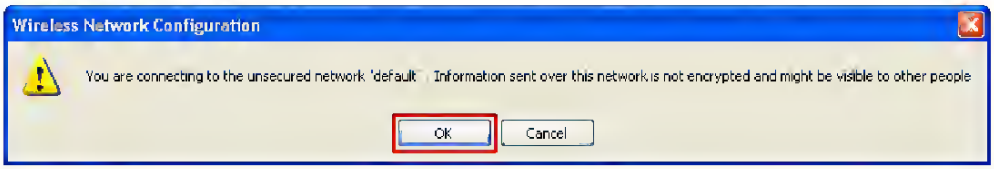
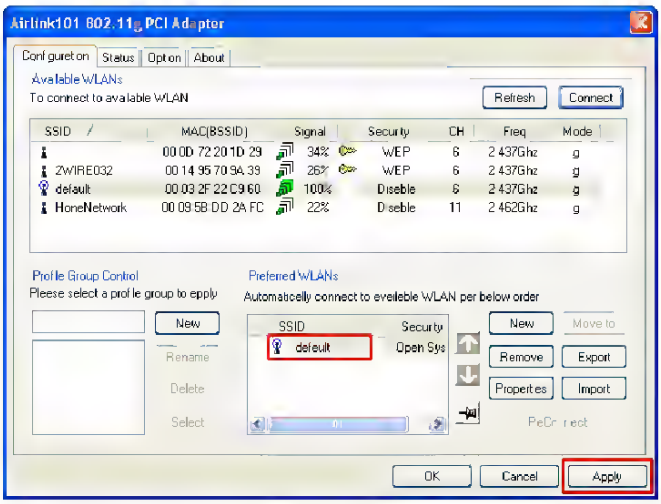
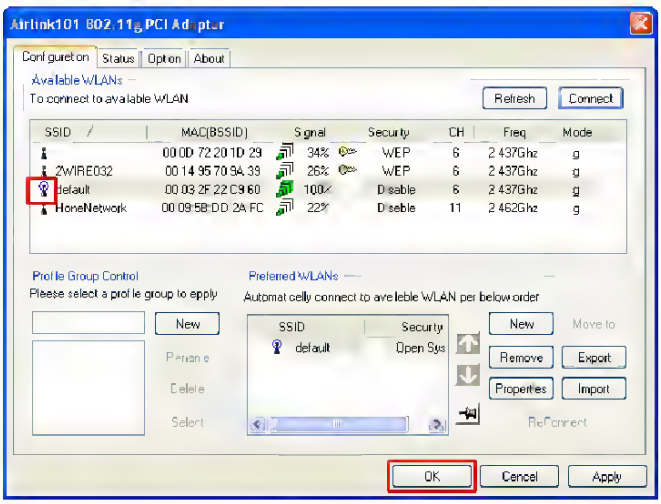
Step 2 If you are connecting to an unsecured wireless network, a caution message will appear. Click **OK** to exit the message.


Wireless Network Configuration
You are connecting to the unsecured network 'default'. Information sent over this network is not encrypted and might be visible to other people
OK
Cancel

Step 3 Verify the SSID you have selected is in the **Preferred WLANs** box and click **Apply**.



Step 4 A blue circle appears indicating a connection is established. Click **OK**.



Note: *In some cases, you may need to restart your computer to complete the wireless connection.*

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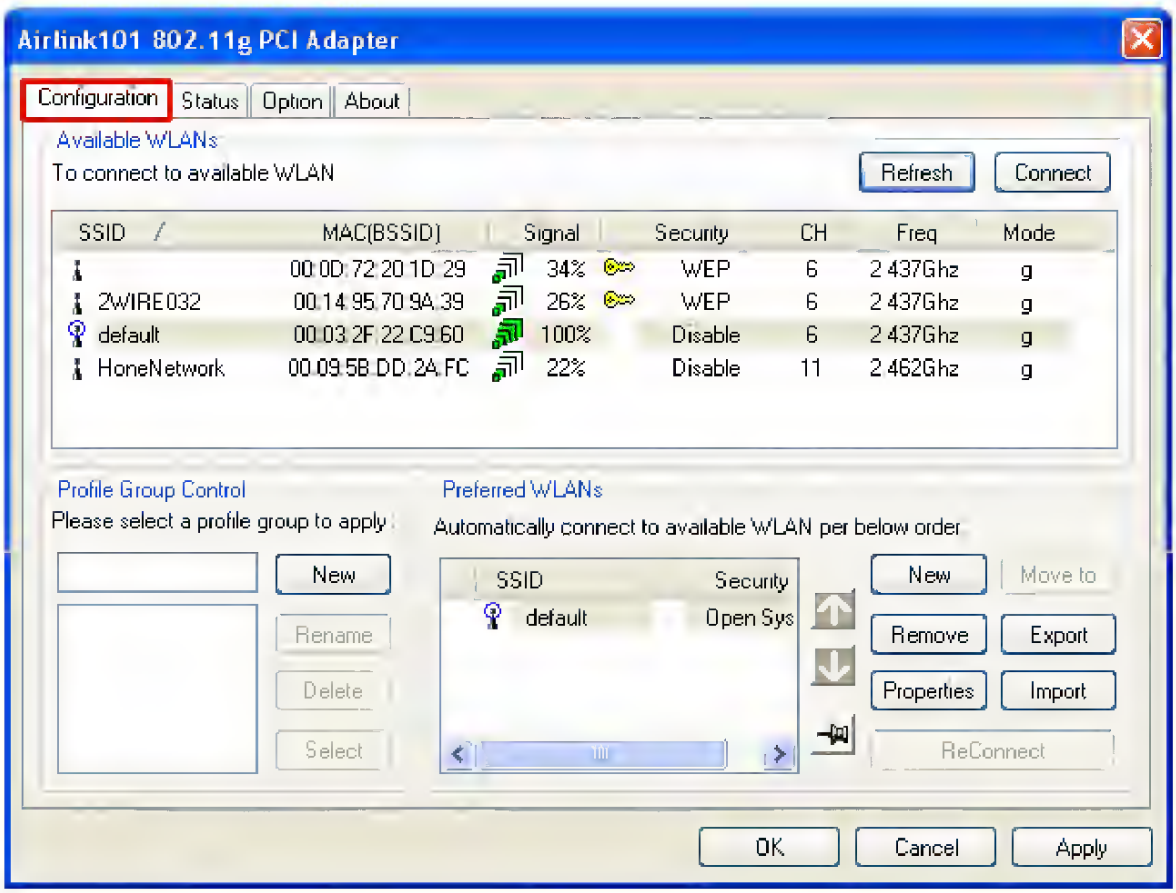
4. Configure the WLAN Monitor

This section describes the various functions of the WLAN Monitor that you can configure, including the settings of wireless encryption.

4.1 Configuration Tab

The **Configuration Tab** displays all available Access Points detected.



Available WLANs: Displays all available Access Points detected. To update the list, click on **Refresh**. To connect to a SSID in the list, click on **Connect**.

Preferred WLANs: You may add a preferred SSID that the wireless adapter will automatically connect to upon startup. To add a new SSID from the available WLANs list, select the desired SSID and click **Connect**. To add a new SSID that is not listed in the available WLANs list, click on **New** and manually enter the name of the SSID. If you have more than one preferred WLAN, you may move the SSID up or down the list. Each time the computer starts up, the wireless adapter will attempt to connect to the SSID

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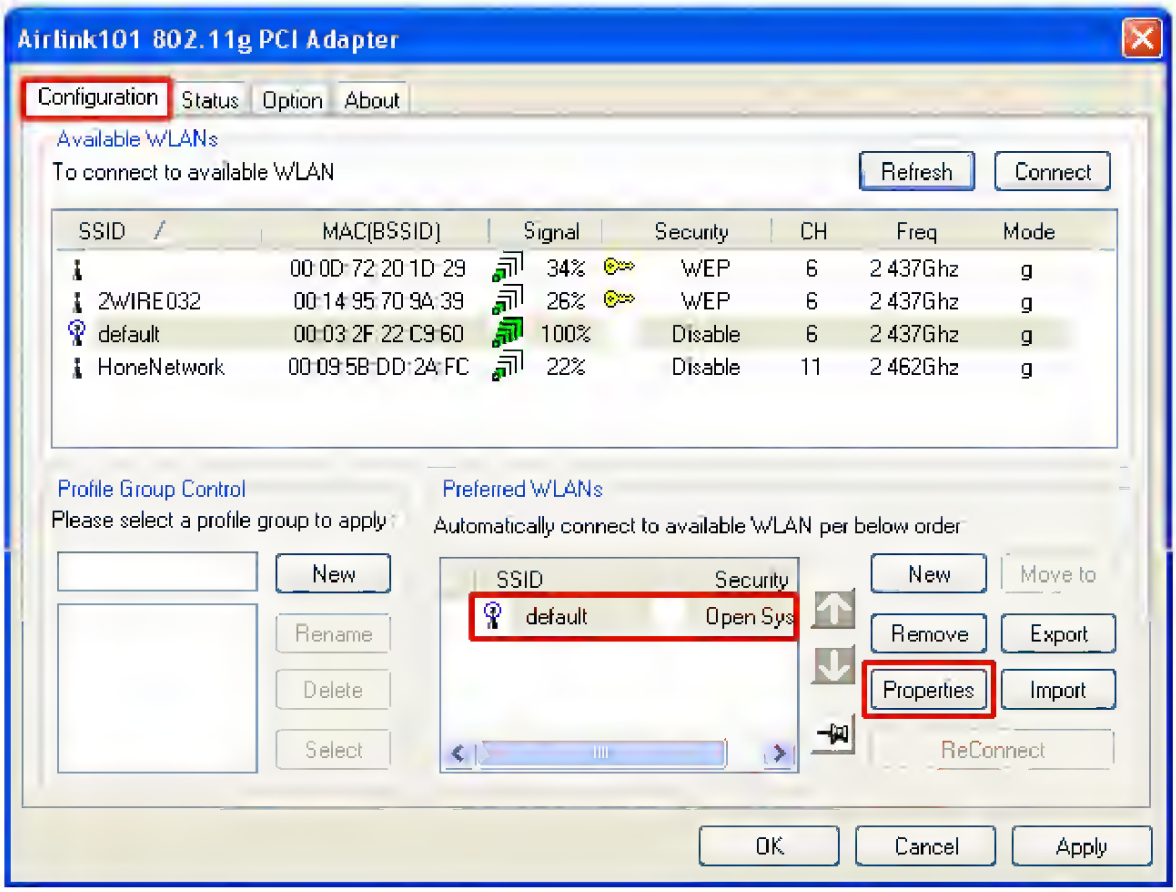
listed beginning from the top of the list. If you wish to configure the properties of a WLAN, highlight it and click on **Properties**.

Profile Group Control: Once you have added all the SSIDs you want to the Preferred WLANs box, you can group them by giving them a name in the **Profile Group Control** box and click **New**. Any configuration you set to the group will automatically be applied to all the WLANs in that group.

Be sure to click **Apply** to save your settings.

4.1.1 Configuring WEP Encryption

Step 1 Select the SSID you wish to configure the encryption for from the **Preferred WLANs** box and then click **Properties**.



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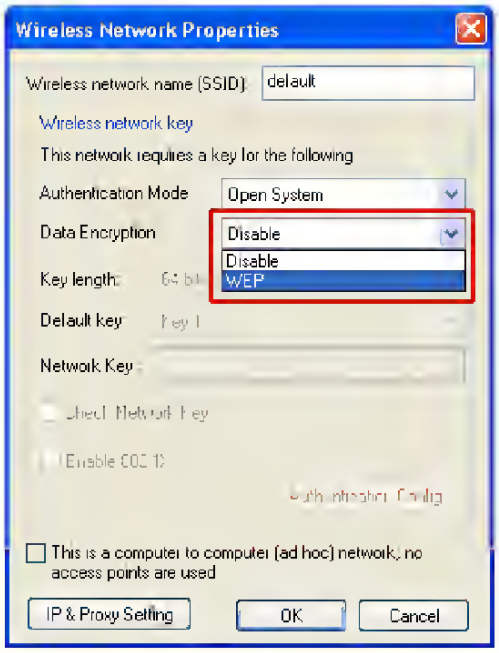
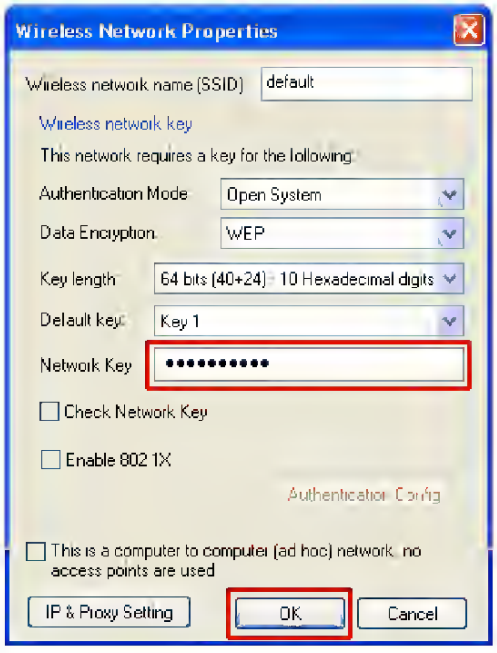
Step 2 Select **WEP** from the **Data Encryption** drop-down list.



Step 3 Select the appropriate **Key length** and **Default key** and enter the password in the **Network Key** field and click **OK**. The Key length, Default Key, and password must all be the same as the wireless network you are connecting to.


Wireless Network Properties
Wireless network name (SSID): default
Wireless network key
This network requires a key for the following
Authentication Mode: Open System
Data Encryption: WEP
Key length: 64 bits (40+24) - 10 Hexadecimal digits
Default key: Key 1
Network Key: ••••••••••
Check Network Key
Enable 802.1X
Authentication Config
This is a computer to computer (ad hoc) network; no access points are used
IP & Proxy Setting
OK
Cancel

Step 4 Click **Apply** and then **OK** at the **Configuration Tab**.

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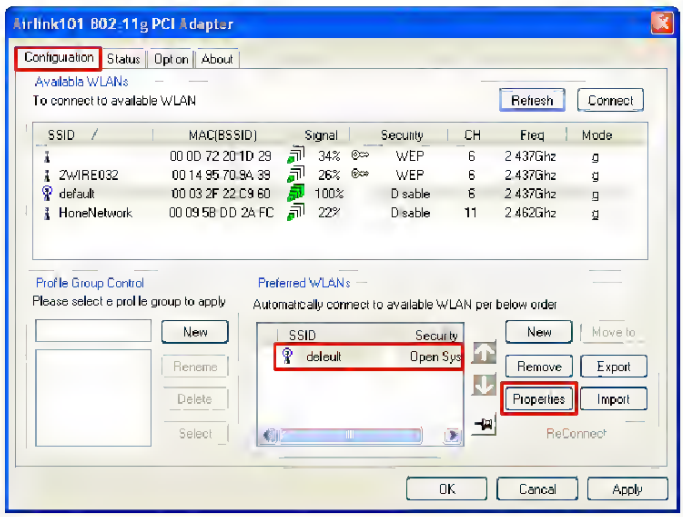
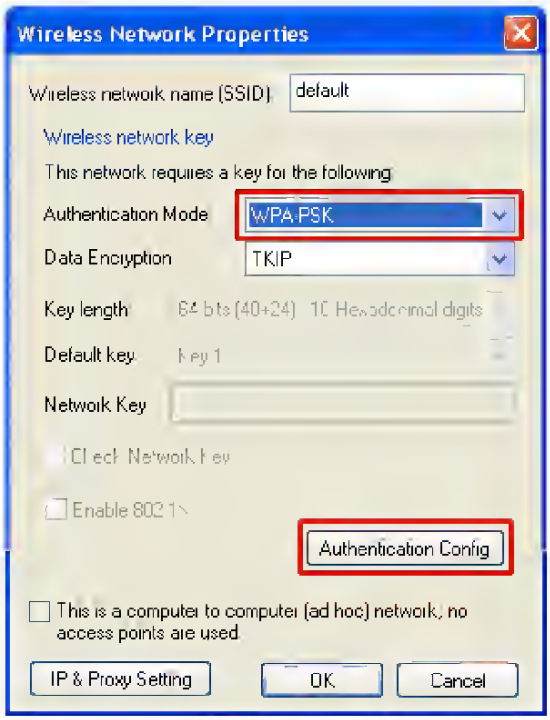
4.1.2 Configuring WPA-PSK Encryption

Step 1 Select the SSID you wish to configure the encryption for from the **Preferred WLANs** box and then click **Properties**.



Step 2 Select **WPA-PSK** from the **Authentication Mode** drop-down list and then click on the **Authentication Config** button.



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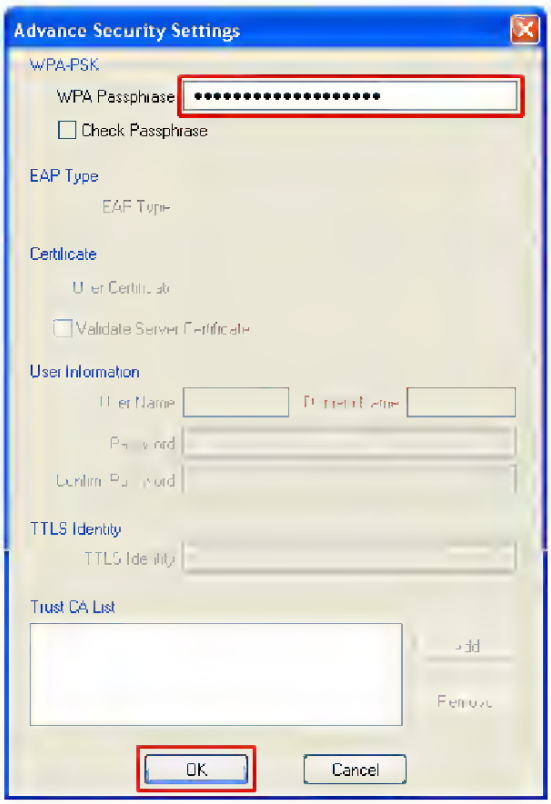
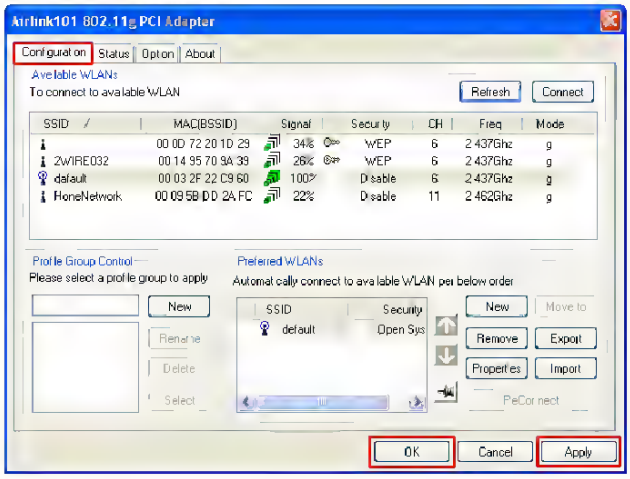
Step 3 Enter the password in the **WPA Passphrase** field. The password must be the same as the wireless network you are connecting to.



Step 4 Click **OK** and then **OK** again.

Step 5 Click **Apply** and then **OK** at the **Configuration Tab**.



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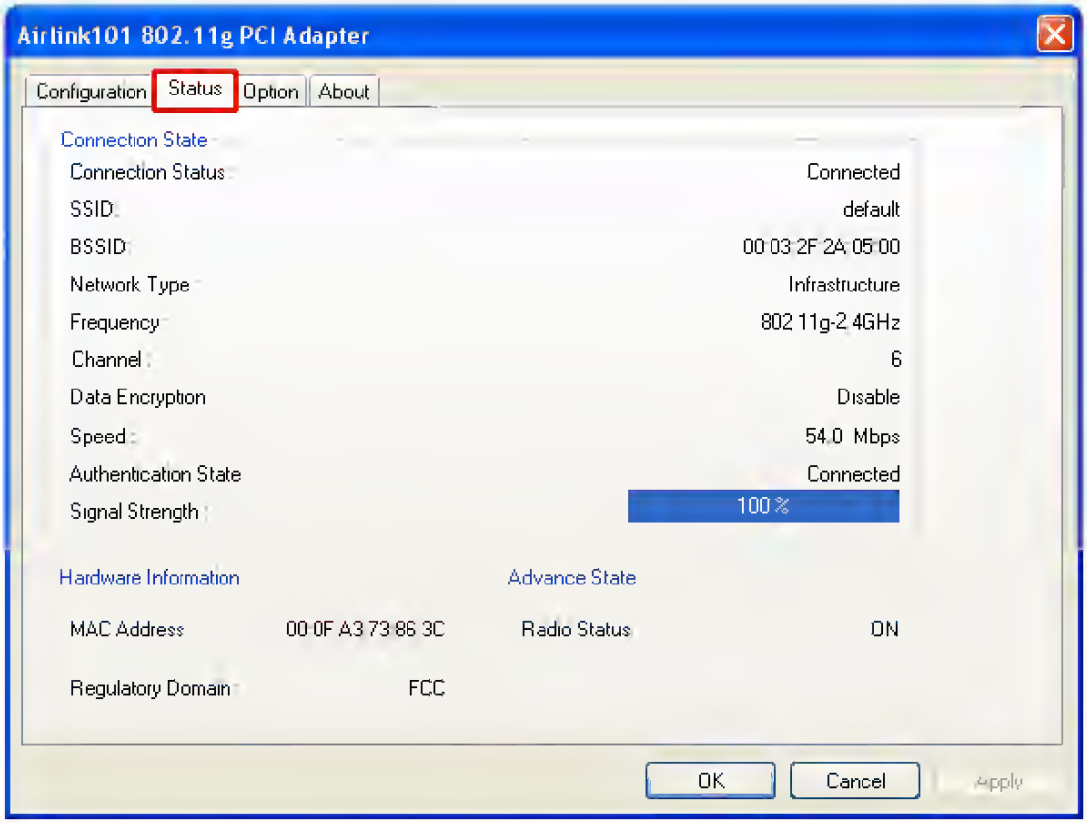
4.2 Status Tab

The **Status Tab** displays information about the Connection State, Hardware Information, and Advance State.



Connection Status: Displays the status of the connection
SSID: The SSID that the wireless adapter is connected to
BSSID: The MAC Address of the Access Point that the wireless adapter is connected to
Network Type: The network connection type
Frequency: The frequency that the wireless adapter is using
Channel: The channel number that the wireless adapter is using
Data Encryption: Displays if WEP encryption is enabled or disabled
Speed: Displays the speed of the connection
Authentication State: Displays the authentication state
Signal Strength: Displays the signal strength of the connection

Hardware Information: Displays the MAC Address of the wireless adapter and the regulatory domain.

Advanced State: Displays whether the radio signal is On or Off.

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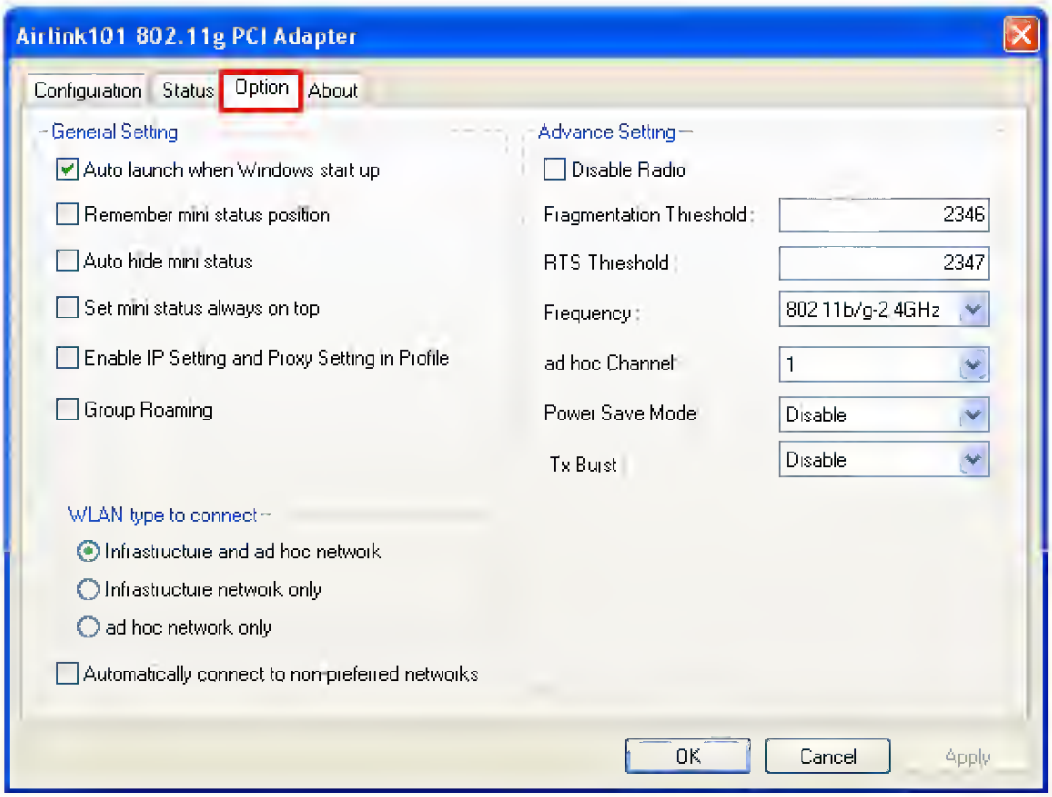
4.3 Option Tab

The Option Tab allows you to configure the wireless adapter's General and Advanced Settings as well as its Connection Type.



General Setting

Auto launch when Windows starts up: Check the box to launch the WLAN Monitor when Windows starts up
Remember mini status position: Remembers the mini status screen position
Auto hide mini status: Auto hides the mini status screen
Set mini status always on top: The mini status screen will always stay on top of the desktop
Enable IP setting and Proxy setting in profile: Allows you to back up previous IP settings
Group Roaming: Check the box to enable group roaming

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Advance Setting

Disable Radio: Check the box to disable the radio signal
Fragmentation Threshold: Set the desired fragmentation threshold
RTS Threshold: Set the desired RTS threshold
Frequency: 802.11b/g switches automatically between 802.11b and 802.11g speed depending on the other wireless device. 802.11b will only connect at 802.11b speed (11 Mbps or lower).
Start ad hoc network: Choose the appropriate frequency for your ad-hoc network
Ad-Hoc Channel: Choose the desired channel for your ad-hoc network. All devices in the ad-hoc network must use the same channel.
Power save Mode: Choose among **Disable**, **Max Save**, **Fast Save**

- **Disable -** This default setting consumes the most power.
- **Max Save** - This setting consumes the least power.
- **Fast Save** - This setting consumes half the power.

Tx Burst: Choose to enable or disable burst transmission.

WLAN type to connect

Infrastructure and Ad-Hoc network: For connecting to either an access point or a peer-to-peer network without an access point.
Infrastructure: For connecting to an access point only
Ad-Hoc: For connecting directly to another wireless client without using an Access Point or wireless router. (Both wireless clients must be set to Ad-Hoc mode).

Automatically connect to non-preferred networks: Check the box to automatically connect to non-preferred networks upon startup.

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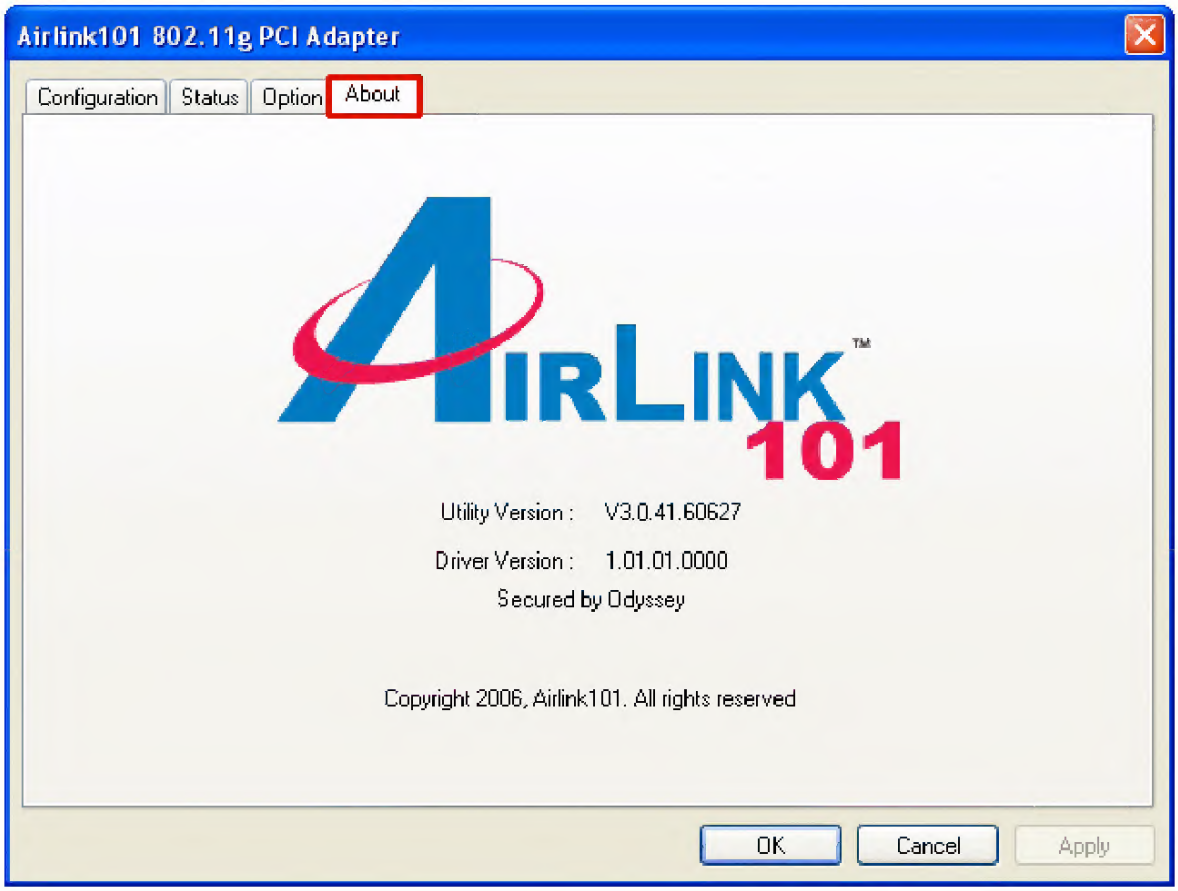
4.4 About Tab

The **About Tab** displays the Driver and Utility's version number.



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5. Specifications

Frequency Band
• 2.4 - 2.5 GHz ISM bandwidth

Standards
• IEEE 802.11b / 802.11g

Host Interface
• 32-bit PCI

Antenna type
• Omni-direction +2dBi dipole detachable antenna

Security
• 64 / 128-bit WEP Encryption
• TKIP, AES

Transmitted Power
• 14dBm @54Mbps
• 18dBm @11Mbps

Data Transfer Rate
• 802.11g: 54/36/24/18/12/9/6 Mbps
• 802.11b: 11/5.5/2/1 Mbps

System Requirement
• Available PCI slot
• Windows 98SE/ME/2000/XP
• 300 MHz processor or better
• 32MB RAM

Weight
• 18oz

Environment
• Operating Temp: 0ºC to 55ºC
• Storage Temp: -20ºC to 75ºC

Warranty
• Limited 1-year warranty

Safety Approvals
• FCC and CE

UPC Code
• 6 58729 08 024 9

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Technical Support

E-mail: support@airlink101.com

Toll Free: 1-888-746-3238

Web Site: www.airlink101.com

*Theoretical maximum wireless signal rate based on IEEE standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate. Specifications are subject to change without notice. All products and trademarks are the property of their respective owners. Copyright ©2006 AirLink101™

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